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FiLE - Financial Literacy and Entrepreneurship

Executive summary

Poor financial decision-making seems to be a widespread phenomenon among common people (Hung, et al., 2009), with dramatic long-term consequences on the economic system, undermining its basis and stability (Hung, et al., 2009).

CONSOB is the institution that supervises the Italian financial market and safeguards categories from investors to savers. From its perspective, it was clear that the financial literacy problem must be addressed from its roots. However, the problem is shared by many stakeholders, that the team encountered during the project, as I3P and PoliHub incubators and the Turin Chamber of Commerce.

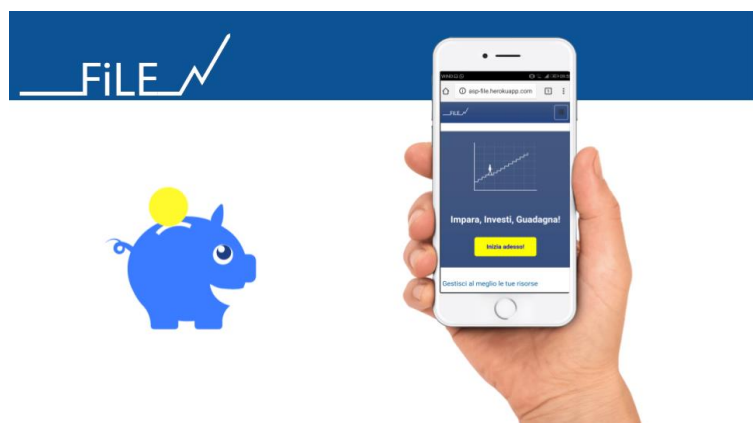
Existing solutions are mainly based on frontal lessons, workshops and MOOCs. Being aware of the limits of the existing solutions, such as poor engagement, and the special target the project is addressing, i.e. new-born time-eager entrepreneurs, the FiLE platform has been designed following an approach never implemented in financial teaching, but successful in other fields.

The idea consists in a platform which allows users to interact over the time and which follows a reverse learning paradigm: the user is first asked to respond to questions of different levels and then, if he answers the wrong way, there is an explanation so that he can learn from his errors. When the user accesses the platform for the first time, a placement test is proposed. This test's results allow users to start using the platform from a difficulty level which is tailored on his previous knowledge. A learning path is proposed to the user on relevant financial topic as Business Law, Corporate finance, Entrepreneurial Finance and Accounting.

The platform and the idea behind it have generated great interest by the stakeholders, which showed their interest to continue the development and finalization of the platform even though the academic project is concluded.

Key Words

Financial Literacy, Financial Education, Entrepreneurs, Web-Platform



FiLE Platform



Picture of the night in which the FiLE platform was designed. After long days spent searching through the literature for problems, hints and related works, the team gathered for a massive brainstorming that lead to big results.



FiLE meets future stakeholders: the Turin's Chamber of Commerce.

Project description written by the Principal Academic Tutor

Entrepreneurship represents a fundamental driver for job creation, innovation, structural change and long-run economic growth. Financial literacy, business acumen and attitude towards risks are the three keys that can make an entrepreneur successful.

Nowadays, the typical approach to spread financial education is through books or frontal lessons and workshops. These methods' efficacy is a subject of discussions in the literature because of the inability to engage and motivate the target.

In line with the literature, CONSOB realized that this gap in the financial education is particularly felt in Italy and decided to investigate possible solutions. Following the CONSOB mission, the FiLE team explored a technological solution that gained the interest of the Camera di Commercio for a possible application in Schools.

The FiLE platform is a web application that leverages first on existing successful teaching mechanisms, and second on consolidated methods for evaluating financial literacy, to engage the user in a learning itinerary through business law, entrepreneurial finance, corporate finance, and accounting. After a first assessment, the platform suggests the difficulty based on the user preparation, and then the user is guided by a carefully designed user experience through the learning process, until his proficiency is strong enough to deal with the most common problems.

Team description by skill

The team is composed by six members: Andrea, Eleonora, Gianluca, Jessica, Lorenzo, Massimo. The main area of expertise is management and finance, with additional expertise in computing and design.

Andrea Cammi is a Management Engineer with focus on Finance. After exploring the world by studying in Italy, London, Paris and Berlin, he decided to explore new fields and started coding during his semesters abroad.

Eleonora Acero is a Management Engineer with focus on Innovation. A person with many hobbies and a creative spirit, Eleonora has no time to sleep, and she can survive better than most people and even take beautiful pictures of them.

Gianluca Giorgini is a Management Engineer with focus on Social Innovation and Sustainable Operations. With his rebel spirit, Gianluca proven himself to be a precious resource by starting the most productive discussions in the group.

Jessica Vetere is an Interior Designer. Flexible and open-minded, Jessica applied the creativity developed during her studies on a totally different area, the design of a web platform. After she got promoted to Communication Coordinator, she decided to find a new life in Norway.

Lorenzo De Castro is a Management Engineer with focus on Finance. He surely learnt a lot from his Internship in the management consulting firm BCG, as he proved by sketching time diagrams and fluently interacting with the stakeholders.

Massimo Tumolo is a Computer Engineer with focus on Networking. Passionate about software, he found himself coding for physicists at CERN. Due to his need of organization, he has lead the team. Truth is, the task was easy with such a skilled team.

Overall, the team has a variegated set of skill in finance, software development, design, art, flexibility and cocktail-drinking.

Goal

Entrepreneurship represents a crucial leverage to boost economic growth, and its effects are even stronger in Italy nowadays. Every entrepreneur has to face many complex choices during its daily activities and many of them are related to financial topics. Indeed, it has been shown that better financial literacy helps to improve entrepreneurial firms' performances. On the other hand, previous studies have spotted many gaps in entrepreneurs' financial literacy. Because of the importance of financial knowledge, this issue should not be neglected and so, the aim of the FiLE platform is to help to bridge this gap. FiLE tries to assess and educate entrepreneurs, having a particular focus on high-tech ones. To do so, the modern digital technologies may be exploited to put forward new approaches to financial literacy assessment and education. Moreover, digital platforms are more suited to address the high-tech entrepreneurs and the so-called start-uppers' culture. Moving from traditional financial literacy questionnaires to a digitalized approach has many challenging opportunities and the aim of FiLE is to exploit them. Putting together these new opportunities coming from digital technologies, design tools available to better interact with the respondents and sound literature-based contents, the FiLE platform aims to better understand entrepreneurs' financial literacy to help them to succeed.

Understanding the problem

Financial literacy, whose importance has risen worldwide during the last decade, is nowadays considered a critical skill, especially for individuals that have to deal with a complex financial environment. However, poor financial decision-making seems to be still a widespread phenomenon among common people (Hung, et al., 2009), as well as the lack of comprehension of some basic financial concepts (Messy & Atkinson, 2012). Such illiteracy can have serious long term consequences for the individual's financial security since bad savings and investment decisions build over time and often go unobserved until a point of crisis. Overall, the lack of financial knowledge has dramatic long-term consequences on the economic system as a whole, undermining its basis and stability (Hung, et al., 2009).

Therefore, governments around the world are highly interested in finding effective tools to improve the financial capabilities of their citizens; such rising concern stimulates the research in this field, although results are still fragmented. Findings show that financial knowledge level varies with age, gender and education and that frequently there is relevant discrepancy between individuals' self-evaluation and their actual financial literacy score.

Although no standard definition of financial literacy exists, it can be described as "a combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing." (Messy & Atkinson, 2012).

With regard to the most appropriate way to measure financial literacy, which is a hot point of the debate in this field (Allgood & Walstad, 2016), Lusardi and Mitchell (Mitchell & Lusardi, 2014) identified three main concepts contributing to the saving and investment choices: *numeracy and capacity to do calculations related to interest rates, understanding of inflation and risk diversification*.

Other studies, such as the INFE and FSA (Reyniers, et al., 2008) ones, developed survey instruments to capture a broader concept, namely financial capability, which combines financial literacy with a set of beneficial attitudes, behaviors and external factors (Lusardi, 2012). However, the fundamental relationships between literacy, education and behavior remain a controversial issue since a knowledge gap persists in this literature domain, also for the lack of adequate data; researchers found evidences that financial literacy affects financial behavior but no causal relationship was found (Allgood & Walstad, 2016).

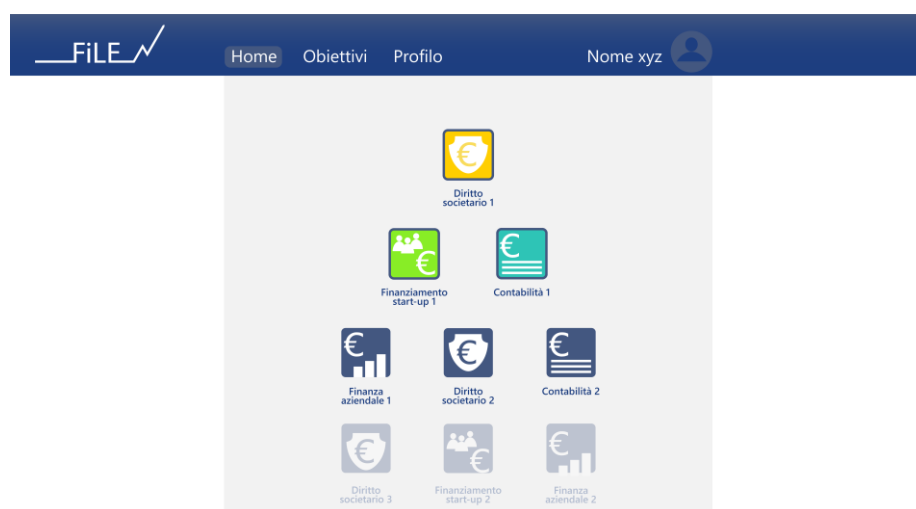
In fact, financial literacy only identifies what is required to have an appropriate financial behavior but does not guarantee this will occur; this happens because decision-making is influenced by the individual's psychology, cognitive and behavioral biases and eventually by external circumstances. (Huston, 2010)

This suggests that education aiming at improving financial decision-making should not only focus on teaching financial concepts but rather on training thinking skills to try overcoming unconscious biases (Reyniers, et al., 2008). However, in Italy financial education initiatives are still fragmented and have very modest forms of results monitoring, making difficult to identify best practices to be carried on.

As far as entrepreneurs are concerned, in a financial literacy context they differ from consumers for the type of financial decisions and challenges they have to face every day and, moreover, for the potential consequences such choices can have on their own family members', employees', suppliers' and costumers' livelihoods.

So, the international curricula agree on including in financial education programs for entrepreneurs topics like financial and risk management, record keeping and compliance, finance providers and their requirements.

Finally, above from the contents, it is difficult to identify the best educational form to meet entrepreneurs' availability and motivation.



File Platform – Choosing the section



FiLE Platform – Correct answer

Exploring the opportunities

Teaching to entrepreneurs, in particular Financial Literacy, is not an easy task: it has been long recognized as a problem, however the available solutions are not effective. Undertaking this kind of activities requires an optimal leveraging of several factors, that could not be addressed together so far.

First, learning is a time-consuming activity, unfit for Entrepreneurs and Startupper, people with a very busy schedule. Traditional didactic approaches are rejected for their rigidity in terms of time and space constraints to leave room for online applications. Second, understanding the optimal teaching content has the highest priority. Entrepreneurs must not be taught as they would in a academic course, instead their learning should have a real and visible impact on their activities. The FiLE team had continuous confrontation with potential users to understand how to choose the content of the FiLE application. Finally, learning online is an activity that may lead to boredom and dropouts. The FiLE project is therefore structured in a way to keep users always engaged throughout their experience.

Generating a solution

The FiLE platform is based on a self-developed database of more than 170 multiple-choice questions based on financial literacy academic literature. It is divided into four main sections selected according to the main stakeholders' indications and literature analysis: Entrepreneurial Finance (*Finanzimento Startup*), Corporate Finance (*Finanza Aziendale*), Accounting (*Contabilità*), Business Law (*Diritto Societario*). For every question in these four sections, the user's financial literacy is not only tested but also improved with literature-based explanations of his answers. What mainly characterizes the FiLE platform is its continuous interaction with the user. Indeed, the platform evolves from the traditional features of a questionnaire. While a questionnaire oftentimes represents a one-shot interaction with the respondent, in the FiLE platform the "respondent" becomes a "user" because he or she is stimulated to interact several times with the digital platform and the platform can recognize who the user is. So, questions' difficulty can be tailored to the user's financial literacy according to the user's previous answers' correctness. In addition, also various engagement tools as user's performance tracking and statistical comparisons have been developed. Thanks to this structure, the FiLE platform aims at being always challenging and useful for the user. This continuous interaction with a motivated user provides data on its literacy not only once but continuously over the time and, most importantly, the platform can also improve the user's literacy while testing it.

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